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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,314	08/26/2003	John S. Toeppen	IL-11053	5399

7590 12/06/2005
Ann M. Lee/Michael C. Staggs
Assistant Laboratory Counsel
Lawrence Livermore National Laboratory
P.O. Box 808, L-703
Livermore, CA 94551

EXAMINER

CRUZ, MAGDA

ART UNIT	PAPER NUMBER
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2851

DATE MAILED: 12/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/649,314

Applicant(s)

TOEPPEN, JOHN S.

Examiner

Magda Cruz

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 8-18 and 20-24 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 12-18 and 20-24 is/are allowed.
6) ☒ Claim(s) 1-6 and 8-11 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 26 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

Specification

1. The amendment filed 09/26/2005 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: "a folded geometry example" (amendment, page 8, line 19), "projector lenses... having a square geometry" (amendment, page 9, lines 7-8), "circles of light can be projected images of circular projection lenses" (amendment, page 9, lines 12-13), "the images can be detrimental to perceived quality" (amendment, page 10, lines 14-15), and "preserve the relative brightness for each eye" (amendment, page 11, lines 1-2).

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 5-6 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ezra et al. in view of Cheysson et al.

Ezra et al. (US Patent Number 5,703,717) discloses:

- Regarding claim 1, an autostereoscopic projection viewer comprising one or more pairs of projector lenses (Figure 5, element 28) configured to correspond to one or more pairs of respective projection displays (Figure 5, element 31); and a field lens (Figure 5, element 37), wherein said field lens (Figure 5, element 37) is arranged at a predetermined distance from said projector lenses and said image corrector plate to produce one or more predetermined magnified stereoscopic aberration corrected images of said projection displays (column 4, line 64 through column 5, line 7) at predetermined one or more pairs of optical eyezones (Figure 5, element 31).
- Regarding claims 4, the field lenses include a zonal plate (Figure 5, element 33).
- Regarding claims 5, the optical aberrations include at least one from: coma, spherical, astigmatism, distortion, curvature of field and chromatic (column 2, lines 65-67).
- Regarding claims 6, the viewer includes a folded geometry (Figure 11).
- Regarding claims 8, the projector lenses (Figure 11, element 28) have a square geometry (Figure 11).
- Regarding claims 9, the projection displays include at least one from: CRT's, transparencies, liquid crystal spatial light modulators, transparencies, plasma sources, digital light projectors, flat panel monitors, photographs (column 1, lines 50-53).

- Regarding claims 10, the transmission displays include one or more computer generated images (column 2, lines 34-37).
- Regarding claims 11 the images include keystone correction (column 2, lines 65-67).

Ezra et al. teach the salient features of the present invention as explained above, except an image corrector plate, wherein said image corrector plate is capable of correcting for predetermined optical aberrations.

Cheysson et al. (US Patent Number 4,874,214) disclose an image corrector plate (i.e. holographic plate; column 4, line 25), wherein said image corrector plate (i.e. holographic plate) is capable of correcting for predetermined optical aberrations (column 4, lines 25-27).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the image corrector plate disclosed by Cheysson et al. in combination with the projector lenses from Ezra et al.'s invention for the purpose of minimizing aberrations (Cheysson et al., column 2, lines 19-20).

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ezra et al. in view of Cheysson et al. as applied to claims 1, 5-6 and 8-11 above, and further in view of Mantravadi et al.

Ezra et al. (US Patent Number 5,703,717) in combination with Cheysson et al. (US Patent Number 4,874,214) teaches the salient features of the present invention as explained above, except a volume hologram.

Mantravadi et al. (US Patent Number 5,206,499) discloses a volume hologram (Figure 2, elements 26 and 32).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize the holograms disclosed by Mantravadi et al. in substitutions of the image corrector plate from Cheysson et al.'s invention, for the purpose of correcting chromatic aberrations of magnification to ensure high contrast.

5. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ezra et al. in view of Cheysson et al. as applied to claims 1, 5-6 and 8-11 above, and further in view of Biles et al.

Ezra et al. (US Patent Number 5,703,717) in combination with Cheysson et al. (US Patent Number 4,874,214) teaches the salient features of the present invention as explained above, except a pair of Fresnel lenses adapted to operate collectively as a field lens.

Biles et al. (US Patent Number 5,355,188) discloses a pair of Fresnel lenses (16, 30) adapted to operate collectively as a field lens.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize the pair of Fresnel lens disclosed by Biles et al. in combination with the field lens from Ezra et al.'s invention, for the purpose of providing a method and apparatus for projecting a distortion-free image.

Allowable Subject Matter

6. Claims 12-18 and 20-24 are allowed.

Response to Arguments

7. Applicant's arguments with respect to claims 1-6 and 8-11 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Magda Cruz whose telephone number is (571) 272-2114. The examiner can normally be reached on Monday through Thursday 8:00-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William Perkey
Primary Examiner

Magda Cruz
Patent Examiner

November 29, 2005